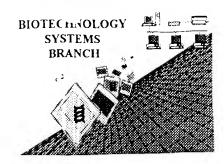
0521

RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/923.844Source: 09/923.844Date Processed by STIC: 8/6/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

OIPE

RAW SEQUENCE LISTING DATE: 08/16/2001 PATENT APPLICATION: US/09/923,844 TIME: 12:54:02

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\08162001\I923844.raw

13 <151> PRIOR FILING DATE: 2000-08-11

15 <160> NUMBER OF SEQ ID NOS: 20

128 <210> SEQ ID NO: 2

17 <170> SOFTWARE: FastSEQ for Windows Version 4.0

ERRORED SEQUENCES

129 <211> LENGTH: 371 130 <212> TYPE: PRT 131 <213> ORGANISM: Helianthus annuus 133 <400> SEQUENCE: 2 134 Met Glu Phe Leu Lys Ala Pro Thr Leu Leu Leu Val Ile Phe Ser Leu 10 136 Ala Ile Cys Ser Pro Ile Ser Ala Gln Asn Lys Gly Gly Tyr Trp Pro 25 20 138 Ser Trp Ala Gln Asp Phe Leu Pro Pro Ser Asn Ile Gln Thr Ala Tyr 40 140 Phe Thr His Val Tyr Tyr Ala Phe Leu Ser Pro Asn Asn Val Thr Phe 55 142 Gln Phe Asp Val His Arg Thr Thr Ala Ser Ala Leu Asn Ser Phe Asn 70 75 144 Thr Ala Leu His Gly Lys Asn Pro Pro Val Lys Thr Leu Phe Ser Ile 90 146 Gly Gly Gly Ser Ala Gly Val Lys Gln Leu Phe Ser Lys Leu Ala Ser 147 100 105 110 148 Ser Pro Gly Ser Arg Ala Ala Phe Ile Arg Ser Thr Ile Gln Val Ala 120 150 Arg Asn Tyr Tyr Phe Asp Gly Ala Asp Leu Asp Trp Glu Tyr Pro Glu 130 135 140 152 Thr Gln Thr Asp Met Asn Asn Phe Gly Leu Leu Asp Glu Trp Arg 153 145 150 155 154 Val Ala Val Asn Asn Glu Ala Thr Ser Thr Gly Lys Pro Arg Leu Leu 170 165 156 Leu Ser Ala Ala Thr Arg His Glu Pro Glu Val Arg Asp Asn Gly Val 185 180 158 Ala Lys Tyr Pro Val Ala Ser Ile Asn Lys Asn Leu Asp Gly Ile Asn 200 160 Ala Met Cys Tyr Asp Tyr His Gly Pro Trp Thr Pro Asp Ala Thr Gly

DATE: 08/16/2001

TIME: 12:54:02

Input Set : A:\Seqlist.txt Output Set: N:\CRF3\08162001\1923844.raw 210 161 215 162 Ala Pro Ala Ala Leu Tyr Asn Pro Asn Gly Ser Leu Ser Thr Ser Asn 230 235 164 Gly Leu Gln Ser Trp Ile Ser Ala Gly Ile Gln Arg Gln Lys Leu Val 245 250 166 Met Gly Met Pro Leu Tyr Gly Trp Thr Trp Lys Leu Lys Asn Pro Ser 260 265 167 168 Val Asn Gly Ile Gly Ala Pro Ala Ala Gly Ile Gly Pro Gly Asn Glu 280 170 Gly Ala Met Leu Tyr Ser Glu Val Gln Gln Phe Asn Ala Gln Asn Asn 295 172 Ala Arg Val Val Tyr Asp Thr Gln Thr Val Ser Tyr Tyr Ser Tyr Ser 310 315 174 Gly Thr Thr Trp Ile Gly Tyr Asp Asp Val Asn Ser Val Gln Arg Lys 325 330 176 Val Gln Tyr Ala Lys Ser Leu Asn Ile Gly Gly Tyr Phe Phe Trp Thr E--> 177 345 Ala Val Gly Asp Gln Asp Trp Lys 340 221 <210> SEQ ID NO: 4 222 <211> LENGTH: 97 223 <212> TYPE: PRT 224 <213> ORGANISM: Helianthus annuus 226 <400> SEQUENCE: 4 227 Met Lys Ala Pro Thr Met Ile Cys Phe Leu Val Ala Val Ile Ala Ala 228 1 5 10 DEE P.Y 229 Met Met Val Phe Met Gly Gln Leu Pro Ala Ala Thr Ala Val Thr Cys 230 20 25 231 Asn Tyr Met Glu Leu Val Pro Cys Ala Gly Ala Ile Ser Ser Gln 40 233 Pro Pro Ser Gly Ser Cys Cys Ser Lys Val Arg Glu Gln Arg Pro Cys 55 235 Phe Cys Gly Tyr Leu Arg Asn Pro Ser Leu Arg Gln Phe Val Ser Pro E--> 236 65 75 80 Ala Ala Gln Lys Ile Ala Ser 70 238 <210> SEQ ID NO: 5 239 <211> LENGTH: 849 240 <212> TYPE: DNA 241 <213> ORGANISM: Helianthus annuus 243 <400> SEQUENCE: 5 244 cgtcgtttcg cttgcagggg gataaaagat aatatcatga tcaccattca tcacgcctaa 245 aatteeteet ettagteaat tgtgaatatt ttgtaattat tgtgtagaet ataactgtta 120 246 tgtctttgca tatatttctc cttgtaatta gccttgtatt ccagtatata atgatatcaa 180 247 aactetetaa teaageagag agagtteeet gaattacate aeegetgeea tittagteea 240 248 ctaagttaac tteateeatt aattttgtta aegtgaaagg aaatteggte attttetatg 300 249 geogaattge cettgtagtt cacaaaatta catataaaac cacegaattg cegttetegt 360 250 taacaqaaaa aatgaatgaa gttaacccag tggactaaaa tygcaacgat gaaaccattt 420 251 tggatccaca ggcgaaaaat gaaacttttg gactaaactg gcgaaaaata aaacttttgg 480 252 actaaactac atgaactaaa atggetttta actaaatttt aataaccgtt ttaattttat 540 600 253 aaagagaaaa taaactttac aaaaagcatc gettgtetat tttataaaga ttaaagttac 254 ttgcacgttc aaacatatgt tactagatga atcaagagtc atgtacaact ctatgtttag 660 255 ataaggttac tagatgaata tgagttagtc atctataagt ctatacttag aaagttcaaa 720

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/923,844

RAW SEQUENCE LISTING

DATE: 08/16/2001

PATENT APPLICATION: US/09/923,844

TIME: 12:54:02

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\08162001\I923844.raw

F			`	2	5	6	
r.	_	_	_	_		U	

E/ 230											
gtcaatga	tt tgtattga	at actgtttg1	ta gttgaatt	ca taaaagcti	tt gaatactg	t 780te	gtagttgaa	ttcataaaag			
258	<210> SEQ	ID NO: 6				T					
259	<211> LENG	гн: 1089									
260	<212> TYPE	: DNA									
261 <213> ORGANISM: Helianthus annuus											
263	<400> SEQU	ENCE: 6									
264	atcctactac	ctcaaacttt	atctaattca	tcaacacaac	ggaggtttgg	ttatatttgt					
265	ttggtccatc	caaaaggaca	aaaatgcact	teatettaae	aaaaaaaaaa	<u>aaaaaaaaa</u>	120	. 1			
	ctaagttagt		,		_		180				
	caaaaaaaaa						240	P'^{-1}			
268	attcaaatgc	acaaaaaaat	tattttggat	gaaacacgca	tatatgatca	aacccaagag	300	('			
	acgattttaa		-			-		•			
	agagacatat	,		-							
271	aaaccacagc	tataatttat	gtaattttat	ctctataaat	ggacaaagaa	taaaagtttt	480				
	ctacaaacgg	-			, , ,						
273	aactactttc	taactacttt	tctcacaaga	cttaattttc	cacacacatc	tttatgacta	600				
	aatctaccat		-	=			660				
275	accggaccat	cagccacttg	gccacgggcg	cagcttagtg	gaaaccgggg	gtgcacaacc					
276	cctctaatgt	ttcggttaga	agtgcaaaat	ttacgatttt	tcgtccgaaa	attttcgccc					
	accagaactt	_	, ,	-	-		840				
	attttattt		_			_	900				
279	atgcgttata	tgtagatata	gaatttgaac	tegeaacett	ttaattatac	gatacatcac	960				

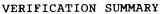
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cacctagatt tgaattetea ttgggcccaa tggtetataa ataatgcacc aaccectcag

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<210> 2 <211> 371 <212> PRT <213> Helianthus annuus <400>2Met Glu Phe Leu Lys Ala Pro Thr Leu Leu Leu Val Ile Phe Ser Leu 1 last amino acid on 15 hord Ala Ile Cys Ser Pro Ile Ser Ala Quel Gln Asn Lys Gly Gly Tyr Trp Pro 20 line Ser Trp Ala Gln Asp Phe Leu Pro Pro Ser Asn Ile Gln Thr Ala Tyr 45 Phe Thr His Val Tyr Tyr Ala Phe Leu Ser Pro Asn Asn Val Thr Phe 50 Gln Phe Asp Val His Arg Thr Thr Ala Ser Ala Leu Asn Ser Phe After 80 Thr Ala Leu 70 75 His Gly Lys Asn Pro Pro Val Lys Thr Leu Phe Ser Ile 85 95 Gly Gly Gly Ser Ala Gly Val Lys Gln Leu Phe Ser Lys 110 100 105 number Pro Gly Ser Arg Ala Ala Phe Ile Arg Ser Thr Ile Gln Val Ala 115 Arg Asn Tyr Tyr Phe Asp Gly Ala Asp Leu Asp 125 Trp Glu Tyr Pro Glu 130 135 140 Thr Gln Thr Asp Met Asn Asn Phe Gly Leu Leu Leu Asp Glu Trp Arg145 155 160 Val Ala Val Asn Asn Glu Ala Thr Ser Thr Gly Lys Pro Arg Leu Leu 165 175 Leu Ser Ala Ala Thr Arg His Glu Pro Glu Val Arg Asp Asn Gly Val 190 Ala Lys Tyr Pro Val Ala Ser 185 195 Ile Asn Lys Asn Leu Asp Gly Ile Asn 200 Ala Met Cys Tyr Asp Tyr His Gly Pro Trp Thr Pro Asp Ala Thr Gly 205 220 215 Ala Pro Ala Ala Leu Tyr Asn Pro Asn Gly Ser Leu Ser Thr Ser Asn225 230 240 Gly Leu Gln Ser Trp Ile Ser Ala Gly Ile Gln Arg Gln Lys 250 245 Met Gly 260 Met Pro Leu Tyr Gly Trp Thr Trp Lys Leu Lys Asn Pro Ser 270 Val Asn Gly Ile Gly Ala Pro Ala Ala Gly Ile Gly 270 275 280 Pro Gly Asn Glu Gly Ala Met Leu Tyr Ser Glu Val Gln Gln Phe Asn Ala Gln Asn Asn 290 Ala Arg Val Val Tyr Asp Thr Gln Thr Val Ser Tyr Tyr Ser Tyr Ser305 310 320 Gly Thr Thr Trp Ile Gly Tyr Asp Asp Val Asn Ser Val Gln Arg Lys 325 330 335 Val Gln Tyr Ala Lys Ser Leu Asn Ile Gly Gly Tyr Phe Phe Trp Thr 340 345 Ala Val Gly Asp Gln Asp Trp Lys Ile Ser Arg Leu Ala Ser Gln Thr 365 Trp Thr Ala 370 355

> Sign. 4-6, tor - same format error



PATENT APPLICATION: US/09/923,844

DATE: 08/16/2001 TIME: 12:54:03

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\08162001\I923844.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:177 M:252 E: No. of Seq. differs, <211>LENGTH:Input:371 Found:352 SEQ:2

L:236 M:252 E: No. of Seq. differs, <211>LENGTH:Input:97 Found:80 SEQ:4

L:256 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:13

L:256 M:252 E: No. of Seq. differs, <211>LENGTH:Input:849 Found:720 SEQ:5

L:280 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:13

L:280 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1089 Found:960 SEQ:6